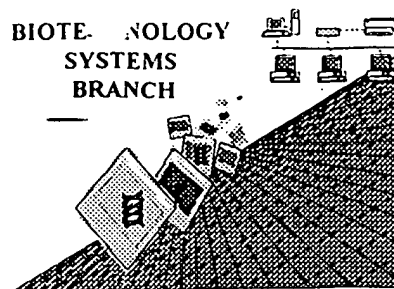


RAW SEQUENCE LISTING **ERROR REPORT**



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/847,519

Source: OIPE

Date Processed by STIC: 5-14-01

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 - 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:

<http://www.uspto.gov/web/offices/pac/checker>

New Sequence Listing Error Summary

ERROR DETECTED SUGGESTED CORRECTION

SERIAL NUMBER: 09/847,519

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 ☐ **Wrapped Nucleics** The number/text at the end of each line "wrapped" down to the next line.
This may occur if your file was retrieved in a word processor after creating it.
Please adjust your right margin to .3, as this will prevent "wrapping".

- 2 ☐ **Wrapped Aminos** The amino acid number/text at the end of each line "wrapped" down to the next line.
This may occur if your file was retrieved in a word processor after creating it.
Please adjust your right margin to .3, as this will prevent "wrapping".

- 3 ☐ **Incorrect Line Length** The rules require that a line not exceed 72 characters in length. This includes spaces.

- 4 ☐ **Misaligned Amino Acid Numbering** The numbering under each 5th amino acid is misaligned. This may be caused by the use of tabs between the numbering. It is recommended to delete any tabs and use spacing between the numbers.

- 5 ☐ **Non-ASCII** This file was not saved in ASCII (DOS) text, as required by the Sequence Rules.
Please ensure your subsequent submission is saved in ASCII text so that it can be processed.

- 6 ☐ **Variable Length** Sequence(s) ☐ contain n's or Xaa's which represented more than one residue.
As per the rules, each n or Xaa can only represent a single residue.
Please present the maximum number of each residue having variable length and indicate in the (ix) feature section that some may be missing.

- 7 ☐ **PatentIn ver. 2.0 "bug"** A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequence(s) ☐. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies primarily to the mandatory <220>-<223> sections for Artificial or Unknown sequences.

- 8 ☐ **Skipped Sequences (OLD RULES)** Sequence(s) ☐ missing. If intentional, please use the following format for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X:
(i) SEQUENCE CHARACTERISTICS:(Do not insert any headings under "SEQUENCE CHARACTERISTICS")
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X:
This sequence is intentionally skipped

Please also adjust the "(iii) NUMBER OF SEQUENCES:" response to include the skipped sequence(s).

- 9 ☐ **Skipped Sequences (NEW RULES)** Sequence(s) ☐ missing. If intentional, please use the following format for each skipped sequence.
<210> sequence id number
<400> sequence id number
000

- 10 ☐ **Use of n's or Xaa's (NEW RULES)** Use of n's and/or Xaa's have been detected in the Sequence Listing.
Use of <220> to <223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

- 11 ☐ **Use of "Artificial" (NEW RULES)** Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules.
Valid response is Artificial Sequence.

- 12 ☒ **Use of <220>Feature (NEW RULES)** Sequence(s) ☐ are missing the <220>Feature and associated headings.
Use of <220> to <223> is MANDATORY if <213>ORGANISM is "Artificial Sequence" or "Unknown"
Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 6/01/98, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of new Rules)

- 13 ☐ **PatentIn ver. 2.0 "bug"** Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing).
Instead, please use "File Manager" or any other means to copy file to floppy disk.

OIPE

RAW SEQUENCE LISTING DATE: 05/14/2001
 PATENT APPLICATION: US/09/847,519 TIME: 12:21:48

Input Set : A:\422us1.app
 Output Set: N:\CRF3\05142001\I847519.raw

3 <110> APPLICANT: LUCHE, Ralf M.
 4 WEI, Bo
 6 <120> TITLE OF INVENTION: DSP-14 DUAL-SPECIFICITY PHOSPHATASE
 8 <130> FILE REFERENCE: 200125.422US
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/847,519
 C--> 11 <141> CURRENT FILING DATE: 2001-05-01
 13 <150> PRIOR APPLICATION NUMBER: 60/201,322
 14 <151> PRIOR FILING DATE: 2000-05-02
 16 <160> NUMBER OF SEQ ID NOS: 16
 18 <170> SOFTWARE: PatentIn Ver. 2.1
 20 <210> SEQ ID NO: 1
 21 <211> LENGTH: 1165
 22 <212> TYPE: DNA
 23 <213> ORGANISM: Homo sapiens
 25 <400> SEQUENCE: 1
 26 ggccagtggg ggtggctggg cgtgcggctg ctacatgcc caccgaccag aacctcccca 60
 27 cgcgccagg ccccgccaca ccagctgca gaaaggagag aaaatccctt ggctctaaaa 120
 28 tgacatctgg agaagtgaag acaagcctca agaatgccta ctcatctgcc aagaggctgt 180
 29 cgccgaagat ggaggaggaa ggggaggagg aggactactg cacccttgga gcctttgagc 240
 30 tggagcggct cttctggaag ggcagtcgcc agtacaccca cgtcaacgag gtctggccca 300
 31 agctctacat tggcgatgag ggcagcgcg cggaccgcta taggtgcag aaggcggggg 360
 32 tcacgcacgt gctgaacgcy gccacggcc gctggaacgt ggacactggg ccgactact 420
 33 accgcgacat ggacatccag taccacggcg tggaggccga cgacctgccc accttcgacc 480
 34 tcagtgtctt cttctaccgg gcggcagcct tcactgacag agcgctaagc gacgaccaca 540
 35 gtaagatcct ggttcaactg gtcattggcc gcagccggtc agccaccctg gtcttggcct 600
 36 acctgatgat ccacaaggac atgaccctgg tggacgcat ccagcaagtg gccagaagac 660
 37 gctgcgtcct cccgaaccgg ggctttttga agcagctccg ggagctggac aagcagctgg 720
 38 tgacgagag ggcagcggtc cagcgccagg acggtgagga ggaggatggc agggagctgt 780
 39 agggccgact cacagggcca gcagaggcac ttggggacag aggggagagg cagaacatag 840
 40 ccctggccta ggactccaga gaagggatgg tgaaaccgaa gctcgactct tccaaacat 900
 41 cttgttcaac ttcccatgt gtgctgggga caggaggagc ccagagctgc cccggggcag 960
 42 agctgagcgc tcagcctctc agcaaatgg gagggacggg ctccccggct ctgggtcaca 1020
 43 gaggagcatg ccacgctgca ccaagtctcc tgctttggtt ttgttttttt ggtgagaagg 1080
 44 aagagggaaa aagattttta aaatgtgtag gcagtatgtt gtgattaaac gtttggtttt 1140
 45 gtccaaaaaa aaaaaaaaaa aaaaa 1165
 48 <210> SEQ ID NO: 2
 49 <211> LENGTH: 220
 50 <212> TYPE: PRT
 51 <213> ORGANISM: Homo sapiens
 53 <400> SEQUENCE: 2
 54 Met Thr Ser Gly Glu Val Lys Thr Ser Leu Lys Asn Ala Tyr Ser Ser
 55 1 5 10 15
 57 Ala Lys Arg Leu Ser Pro Lys Met Glu Glu Gly Glu Glu Asp
 58 20 25 30
 60 Tyr Cys Thr Pro Gly Ala Phe Glu Leu Glu Arg Leu Phe Trp Lys Gly
 61 35 40 45
 63 Ser Pro Gln Tyr Thr His Val Asn Glu Val Trp Pro Lys Leu Tyr Ile

Does Not Comply
 Corrected Diskette Needed
 pp. 2-3

RAW SEQUENCE LISTING

DATE: 05/14/2001

PATENT APPLICATION: US/09/847,519

TIME: 12:21:48

Input Set : A:\422us1.app

Output Set: N:\CRF3\05142001\I847519.raw

```

64      50      55      60
66 Gly Asp Glu Ala Thr Ala Leu Asp Arg Tyr Arg Leu Gln Lys Ala Gly
67 65      70      75      80
69 Phe Thr His Val Leu Asn Ala Ala His Gly Arg Trp Asn Val Asp Thr
70      85      90      95
72 Gly Pro Asp Tyr Tyr Arg Asp Met Asp Ile Gln Tyr His Gly Val Glu
73      100      105      110
75 Ala Asp Asp Leu Pro Thr Phe Asp Leu Ser Val Phe Phe Tyr Pro Ala
76      115      120      125
78 Ala Ala Phe Ile Asp Arg Ala Leu Ser Asp Asp His Ser Lys Ile Leu
79      130      135      140
81 Val His Cys Val Met Gly Arg Ser Arg Ser Ala Thr Leu Val Leu Ala
82 145      150      155      160
84 Tyr Leu Met Ile His Lys Asp Met Thr Leu Val Asp Ala Ile Gln Gln
85      165      170      175
87 Val Ala Lys Asn Arg Cys Val Leu Pro Asn Arg Gly Phe Leu Lys Gln
88      180      185      190
90 Leu Arg Glu Leu Asp Lys Gln Leu Val Gln Gln Arg Arg Arg Ser Gln
91      195      200      205
93 Arg Gln Asp Gly Glu Glu Glu Asp Gly Arg Glu Leu
94      210      215      220
97 <210> SEQ ID NO: 3
98 <211> LENGTH: 19
99 <212> TYPE: PRT
100 <213> ORGANISM: Artificial Sequence
102 <220> FEATURE:
103 <223> OTHER INFORMATION: Description of Artificial Sequence: Peptide
105 <400> SEQUENCE: 3
106 Val His Cys Val Met Gly Arg Ser Arg Ser Ala Thr Leu Val Leu Ala
107 1 5 10 15
109 Tyr Leu Met
113 <210> SEQ ID NO: 4
114 <211> LENGTH: 24
115 <212> TYPE: PRT
116 <213> ORGANISM: Artificial Sequence
118 <220> FEATURE:
119 <223> OTHER INFORMATION: Description of Artificial Sequence: Peptide
121 <400> SEQUENCE: 4
122 Asn Gly Arg Val Leu Val His Cys Gln Ala Gly Ile Ser Arg Ser Gly
123 1 5 10 15
125 Thr Asn Ile Leu Ala Tyr Leu Met
126 20
129 <210> SEQ ID NO: 5
130 <211> LENGTH: 28
131 <212> TYPE: DNA
132 <213> ORGANISM: Artificial Sequence
134 <220> FEATURE:
135 <223> OTHER INFORMATION: Description of Artificial Sequence: Nucleotide
136 primer

```

Responses too obvious. What is the source of the genetic material in the sequences? See #12 on the Error Summary sheet.

RAW SEQUENCE LISTING DATE: 05/14/2001
 PATENT APPLICATION: US/09/847,519 TIME: 12:21:48

Input Set : A:\422us1.app
 Output Set: N:\CRF3\05142001\I847519.raw

138 <400> SEQUENCE: 5
 139 tggcgtccac cagggtcatg tccttgtg 28
 142 <210> SEQ ID NO: 6
 143 <211> LENGTH: 28
 144 <212> TYPE: DNA
 145 <213> ORGANISM: Artificial Sequence
 147 <220> FEATURE:
 148 <223> OTHER INFORMATION: Description of Artificial Sequence: Nucleotide
 149 primer
 151 <400> SEQUENCE: 6
 152 cacaaggaca tgaccctggt ggacgccca 28
 155 <210> SEQ ID NO: 7
 156 <211> LENGTH: 22
 157 <212> TYPE: DNA
 158 <213> ORGANISM: Artificial Sequence
 160 <220> FEATURE:
 161 <223> OTHER INFORMATION: Description of Artificial Sequence: Nucleotide
 162 primer
 164 <400> SEQUENCE: 7
 165 gccccagccg gtcagccacc ct 22
 168 <210> SEQ ID NO: 8
 169 <211> LENGTH: 170
 170 <212> TYPE: PRT
 171 <213> ORGANISM: Homo sapiens
 173 <400> SEQUENCE: 8
 174 Ser Asp Leu Asp Arg Asp Pro Asn Ser Ala Thr Asp Ser Asp Gly Ser
 175 1 5 10 15
 177 Pro Leu Ser Asn Ser Gln Pro Ser Phe Pro Val Glu Ile Leu Pro Phe
 178 20 25 30
 180 Leu Tyr Leu Gly Cys Ala Lys Asp Ser Thr Asn Leu Asp Val Leu Glu
 181 35 40 45
 183 Glu Phe Gly Ile Lys Tyr Ile Leu Asn Val Thr Pro Asn Leu Pro Asn
 184 50 55 60
 186 Leu Phe Glu Asn Ala Gly Glu Phe Lys Tyr Lys Gln Ile Pro Ile Ser
 187 65 70 75 80
 189 Asp His Trp Ser Gln Asn Leu Ser Gln Phe Phe Pro Glu Ala Ile Ser
 190 85 90 95
 192 Phe Ile Asp Glu Ala Arg Gly Lys Asn Cys Gly Val Leu Val His Cys
 193 100 105 110
 195 Leu Ala Gly Ile Ser Arg Ser Val Thr Val Thr Val Ala Tyr Leu Met
 196 115 120 125
 198 Gln Lys Leu Asn Leu Ser Met Asn Asp Ala Tyr Asp Ile Val Lys Met
 199 130 135 140
 201 Lys Lys Ser Asn Ile Ser Pro Asn Phe Asn Phe Met Gly Gln Leu Leu
 202 145 150 155 160
 204 Asp Phe Glu Arg Thr Leu Gly Leu Ser Ser
 205 165 170
 208 <210> SEQ ID NO: 9
 209 <211> LENGTH: 168

See p. 2

RAW SEQUENCE LISTING

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Input Set : A:\422us1.app

Output Set: N:\CRF3\05142001\I847519.raw

210 <212> TYPE: PRT

211 <213> ORGANISM: Homo sapiens

213 <400> SEQUENCE: 9

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214 Asp Arg Glu Leu Pro Ser Ser Ala Thr Glu Ser Asp Gly Ser Pro Val
215   1           5           10           15
217 Pro Ser Ser Gln Pro Ala Phe Pro Val Gln Ile Leu Pro Tyr Leu Tyr
218           20           25           30
220 Leu Gly Cys Ala Lys Asp Ser Thr Asn Leu Asp Val Leu Gly Lys Tyr
221           35           40           45
223 Gly Ile Lys Tyr Ile Leu Asn Val Thr Pro Asn Leu Pro Asn Ala Phe
224           50           55           60
226 Glu His Gly Gly Glu Phe Thr Tyr Lys Gln Ile Pro Ile Ser Asp His
227   65           70           75           80
229 Trp Ser Gln Asn Leu Ser Gln Phe Phe Pro Glu Ala Ile Ser Phe Ile
230           85           90           95
232 Asp Glu Ala Arg Ser Lys Lys Cys Gly Val Leu Val His Cys Leu Ala
233           100          105          110
235 Gly Ile Ser Arg Ser Val Thr Val Thr Val Ala Tyr Leu Met Gln Lys
236           115          120          125
238 Met Asn Leu Ser Leu Asn Asp Ala Tyr Asp Phe Val Lys Arg Lys Lys
239           130          135          140
241 Ser Asn Ile Ser Pro Asn Phe Asn Phe Met Gly Gln Leu Leu Asp Phe
242 145          150          155          160
244 Glu Arg Thr Leu Gly Leu Ser Ser
245           165

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248 <210> SEQ ID NO: 10

249 <211> LENGTH: 157

250 <212> TYPE: PRT

251 <213> ORGANISM: Homo sapiens

253 <400> SEQUENCE: 10

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254 Gly Ala Thr Pro Pro Pro Val Gly Leu Arg Ala Ser Phe Pro Val Gln
255   1           5           10           15
257 Ile Leu Pro Asn Leu Tyr Leu Gly Ser Ala Arg Asp Ser Ala Asn Leu
258           20           25           30
260 Glu Ser Leu Ala Lys Leu Gly Ile Arg Tyr Ile Leu Asn Val Thr Pro
261           35           40           45
263 Asn Leu Pro Asn Phe Phe Glu Lys Asn Gly Asp Phe His Tyr Lys Gln
264           50           55           60
266 Ile Pro Ile Ser Asp His Trp Ser Gln Asn Leu Ser Arg Phe Phe Pro
267   65           70           75           80
269 Glu Ala Ile Glu Phe Ile Asp Glu Ala Leu Ser Gln Asn Cys Gly Val
270           85           90           95
272 Leu Val His Cys Leu Ala Gly Val Ser Arg Ser Val Thr Val Thr Val
273           100          105          110
275 Ala Tyr Leu Met Gln Lys Leu His Leu Ser Leu Asn Asp Ala Tyr Asp
276           115          120          125
278 Leu Val Lys Arg Lys Lys Ser Asn Ile Ser Pro Asn Phe Asn Phe Met
279           130          135          140
281 Gly Gln Leu Leu Asp Phe Glu Arg Ser Leu Arg Leu Glu

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/847,519

DATE: 05/14/2001

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Input Set : A:\422us1.app

Output Set: N:\CRF3\05142001\I847519.raw

```

282 145          150          155
285 <210> SEQ ID NO: 11
286 <211> LENGTH: 170
287 <212> TYPE: PRT
288 <213> ORGANISM: Homo sapiens
290 <400> SEQUENCE: 11
291 Gly Leu Cys Glu Gly Lys Pro Ala Ala Leu Leu Pro Met Ser Leu Ser
292   1          5          10          15
294 Gln Pro Cys Leu Pro Val Pro Ser Val Gly Leu Thr Arg Ile Leu Pro
295          20          25          30
297 His Leu Tyr Leu Gly Ser Gln Lys Asp Val Leu Asn Lys Asp Leu Met
298          35          40          45
300 Thr Gln Asn Gly Ile Ser Tyr Val Leu Asn Ala Ser Asn Ser Cys Pro
301          50          55          60
303 Lys Pro Asp Phe Ile Cys Glu Ser Arg Phe Met Arg Val Pro Ile Asn
304  65          70          75          80
306 Asp Asn Tyr Cys Glu Lys Leu Leu Pro Trp Leu Asp Lys Ser Ile Glu
307          85          90          95
309 Phe Ile Asp Lys Ala Lys Leu Ser Ser Cys Gln Val Ile Val His Cys
310          100         105         110
312 Leu Ala Gly Ile Ser Arg Ser Ala Thr Ile Ala Ile Ala Tyr Ile Met
313          115         120         125
315 Lys Thr Met Gly Met Ser Ser Asp Asp Ala Tyr Arg Phe Val Lys Asp
316          130         135         140
318 Arg Arg Pro Ser Ile Ser Pro Asn Phe Asn Phe Leu Gly Gln Leu Leu
319 145          150          155          160
321 Glu Tyr Glu Arg Thr Leu Lys Leu Leu Ala
322          165          170
325 <210> SEQ ID NO: 12
326 <211> LENGTH: 168
327 <212> TYPE: PRT
328 <213> ORGANISM: Homo sapiens
330 <400> SEQUENCE: 12
331 Pro Ala Gln Ala Leu Pro Pro Ala Gly Ala Glu Asn Ser Asn Ser Asp
332   1          5          10          15
334 Pro Arg Val Pro Ile Tyr Asp Gln Gly Gly Pro Val Glu Ile Leu Pro
335          20          25          30
337 Tyr Leu Tyr Leu Gly Ser Cys Asn His Ser Ser Asp Leu Gln Gly Leu
338          35          40          45
340 Gln Ala Cys Gly Ile Thr Ala Val Leu Asn Val Ser Ala Ser Cys Pro
341          50          55          60
343 Asn His Phe Glu Gly Leu Phe His Tyr Lys Ser Ile Pro Val Glu Asp
344  65          70          75          80
346 Asn Gln Met Val Glu Ile Ser Ala Trp Phe Gln Glu Ala Ile Ser Phe
347          85          90          95
349 Ile Asp Ser Val Lys Asn Ser Gly Gly Arg Val Leu Val His Cys Gln
350          100         105         110
352 Ala Gly Ile Ser Arg Ser Ala Thr Ile Cys Leu Ala Tyr Leu Ile Gln
353          115         120         125

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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/847,519

DATE: 05/14/2001

TIME: 12:21:50

Input Set : A:\422us1.app

Output Set: N:\CRF3\05142001\I847519.raw

L:10 M:270 C: Current Application Number differs, Replaced Application Number

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date